P/N 153525



Svetlana
ELECTRON DEVICES

# *SV 6550C*
## *High Performance Audio Beam Power Pentode*

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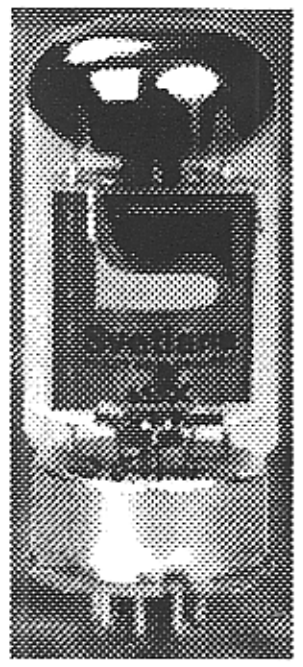

The New Improved 6550.

Svetlana Electron Devices, Inc., has incorporated the improvements from our 6550B series into one product, the new SV6550C.

The SV6550C, manufactured in St. Petersburg, Russia, has the following features:

- Increased peak cathode emission from new cathode materials
- Stable operation from extended processing and aging
- Comprehensive Static and Audio Amplifier testing before and after aging
- Gold-plated grid
- New tri-plate anode
- Single-piece beam forming electrode
- Precise grid/screen alignment
- Barium getter and improved vacuum processing

These features combine to bring superb sound from the new Svetlana SV6550C.

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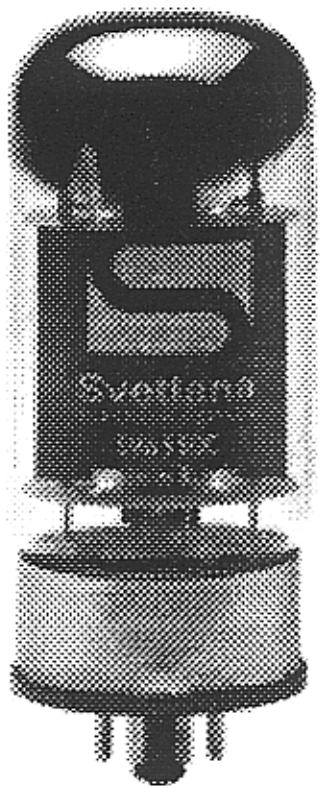


# SVETLANA TECHNICAL DATA

# SV6550C

## High Performance Audio Beam Power Pentode

The Svetlana™ SV6550C is a glass envelope beam power pentode. It is intended for ultra linear audio frequency power amplification service. Close manufacturing specification tolerances and improved processing provide improved reliability and superior sonic performance. The new SV6550C features: increased peak cathode emission from new cathode materials; stable operation from extended processing and aging; gold-plated grid; new tri-plate anode; single-piece beam forming electrode; precise grid/screen alignment; improved vacuum processing; and comprehensive static and audio amplifier testing before and after aging.

The Svetlana SV6550C is manufactured in the Svetlana factory in St. Petersburg, Russia, and is designed to be a direct replacement for any 6550.

### Characteristics

**Electrical**

| | Min. | Nom. | Max. | |
|---|---|---|---|---|
| Heater: | | | | |
| Voltage (AC or DC) | 5.7 | 6.3 | 6.9 | V |
| Current | | 1.6 | | A |
| Cathode: | | Oxide-coated, unipotential | | |
| Cathode-to-heater potential, max. | | | -300*/200** | V |
| Direct interelectrode capacitances, max.*** | | | | |
| Grid no.1 to cathode and grid no.3, grid no.2, base sleeve and heater | | | 18.5 | pF |
| Plate to cathode and grid no.3, grid no.2, base sleeve and heater | | | 12.5 | pF |
| Grid no.1 to plate (max) | | | 1.1 | pF |

**Mechanical**

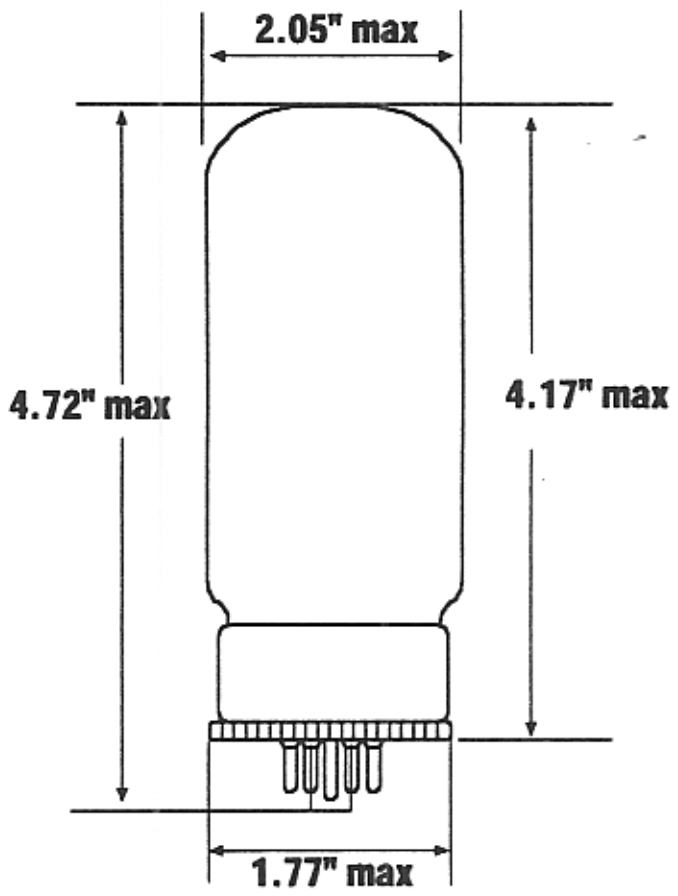
| | |
|---|---|
| Operating Position | Any |
| Base | Large wafer octal 8-pin with metal sleeve |
| Maximum dimensions: | |
| Height | 116 mm (4.57 in.) |
| Seated height | 106 mm (4.173 in.) |
| Diameter | 46 mm (1.81 in.) |
| Cooling | Convection cooled |
| Envelope Temperature (max) | 250°C |
| Approximate net weight | 100 g (3.5 oz.) |

**AF Power Amplifier, Maximum ratings**

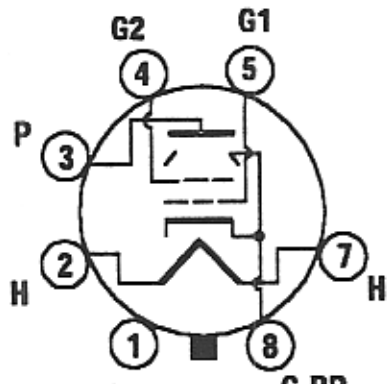
| | | |
|---|---|---|
| DC plate voltage | 680 | V |
| Grid no.2 DC (screen) voltage | 400 | V |
| Grid no.1 (control) voltage | -300 | V |
| DC cathode current | 175 | mA |
| Plate dissipation | 35 | W |
| Grid no.2 (screen) dissipation | 6 | W |

*Max with heater negative to cathode
**Max with heater positive to cathode
***Without external shielding

**Svetlana Outline drawing**




**Bottom View**




External shield around base

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www.svetlana.com

# Svetlana SV6550C
## High Performance Audio Beam Power Pentode

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### Typical Operation Class $A_1$ (single tube)

| | | |
|---|---|---|
| *DC plate voltage* | *400* | *V* |
| *Grid no.2 DC (screen) voltage* | *225* | *V* |
| *Grid no.1 DC (control) voltage* | *-22* | *V* |
| *Peak AF grid no.1 (control) voltage* | *22* | *V* |
| *Zero-signal plate current* | *87* | *mA* |
| *Max signal plate current* | *105* | *mA* |
| *Zero signal grid no.2 (screen) current* | *4* | *mAdc* |
| *Max signal grid no.2 (screen) current* | *18* | *mA* |
| *Transconductance (nominal)* | *9500* | *µS* |
| *Load resistance* | *3000* | *ohms* |
| *Signal output at 5% distortion* | *12* | *W* |